(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Met Asp Gly Lys Ser Lys Met Gln Ala Glu Lys His Leu Thr Gly Thr Leu Val Leu Ser Val Phe Thr Ala Val Leu Gly Phe Phe Gln Tyr Gly Tyr Ser Leu Gly Val Ile Asn Ala Pro Gln Lys Val Ile Glu Ala His Tyr Gly Arg Met Leu Gly Ala Ile Pro Met Val Arg His Ala Thr Asn Thr Ser Arg Asp Asn Ala Thr Ile Thr Val Thr Ile Pro Gly Thr Glu Ala Trp Gly Ser Ser Glu Gly Thr Leu Ala Pro Ser Ala Gly Phe Glu Asp Pro Thr Val Ser Pro His Ile Leu Thr Met Tyr Trp Ser Leu Ser Val Ser Met Phe Ala Val Gly Gly Met Val Ser Ser Phe Thr Val Gly Trp Ile Gly Asp Arg Leu Gly Arg Val Lys Ala Met Leu Val Val Asn Val Leu Ser Ile Ala Gly Asn Leu Leu Met Gly Leu Ala Lys Met Gly Pro Ser His Ile Leu Ile Ile Ala Gly Arg Ala Ile Thr Gly Leu Tyr Cys Gly Leu Ser Ser Gly Leu Val Pro Met Tyr Val Ser Glu Val Ser Pro Thr Ala Leu Arg Gly Ala Leu Gly Thr Leu His Gln Leu Ala Ile Val Thr Gly Ile Leu Ile Ser Gln Val Leu Gly Leu Asp Phe Leu Leu Gly Asn Asp Glu Leu Trp Pro Leu Leu Gly Leu Ser Gly Val Ala Ala Leu Leu Gln Phe Phe Leu Leu Leu Cys Pro Glu Ser Pro Arg Tyr Leu Tyr Ile Lys Leu Gly Lys Val Glu Glu Ala Lys Lys Ser Leu Lys Arg Leu Arg Gly Asn Cys Asp Pro Met Lys Glu Ile Ala Glu Met Glu Lys Glu Lys Gln Glu Ala Ala Ser Glu Lys Arg Val Ser Ile Gly Gln Leu Phe Ser Ser Ser Lys Tyr Arg Gln Ala Val Ile Val Ala Leu Met Val Gln Ile Ser Gln Gln Phe Ser Gly Ile Asn Ala Ile Phe Tyr Tyr Ser Thr Asn Ile Phe Gln Arg Ala Gly Val Gly Gln Pro Val Tyr Tyr Ala Thr Ile Gly Val Gly Val Val Asn Thr Val Phe Thr Val Ile Ser Val Phe Leu Val Glu Lys Ala Gly Arg Arg Ser Leu Phe Leu Ala Gly Leu Met Gly Met Leu Ile Ser Ala Val Ala Met Thr Val Gly Leu Val Leu Leu Ser Gln Phe Ala Trp Met Ser Tyr Val Ser Met Val Ala Ile Phe Leu Phe Val Ile Phe Phe Glu Val Gly Pro Gly Pro Ile Pro Trp Phe Ile Val Ala Glu Leu Phe Ser Gln Gly Pro Arg Pro Ala Ala Ile Ala Val Ala Gly Phe Cys Asn Trp Ala Cys Asn Phe Ile Val Gly

 Met Cys
 Phe Gln
 Tyr
 Ile
 Ala
 Asp
 Leu
 Cys
 Gly
 Pro
 Tyr
 Val
 Phe Val
 480

 Val
 Phe
 Ala
 Val
 Leu
 Leu
 Leu
 Val
 Phe Phe Leu
 Phe Ala
 Tyr
 Leu
 Lys
 495

 Val
 Pro
 Glu
 Thr
 Lys
 Gly
 Lys
 Ser
 Phe Glu
 Glu
 Ile
 Ala
 Ala
 Ala
 Phe

 505
 505
 505
 510
 510
 510
 Arg
 Arg
 Lys
 Lys
 Ser
 Met
 Thr
 Glu
 Leu
 Glu
 Asp
 Leu

 Arg
 Gly
 Gly
 Glu
 Ala
 Ala
 Thr
 Glu
 Ala
 Ala

(2) INFORMATION FOR SEQ ID NO:5:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 494 amino acids
 - (B) TYPE: amino acid
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: protein
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Met Gly Thr Thr Lys Val Thr Thr Pro Leu Ile Phe Ala Ile Ser Ile Ala Thr Ile Gly Ser Phe Gln Phe Gly Tyr Asn Thr Gly Val Ile Asn 20 25 30 Ala Pro Glu Ala Ile Ile Lys Asp Phe Leu Asn Tyr Thr Leu Glu Glu 40 Arg Ser Glu Thr Pro Pro Ser Ser Val Leu Leu Thr Ser Leu Trp Ser 55 Leu Ser Val Ala Ile Phe Ser Val Gly Gly Met Ile Gly Ser Phe Ser 70 75 Val Gly Leu Phe Val Asn Arg Phe Gly Arg Arg Asn Ser Met Leu Ile Val Asn Leu Leu Ala Ile Ala Gly Gly Cys Leu Met Gly Phe Cys Lys 100 105 Ile Ala Glu Ser Val Glu Met Leu Ile Leu Gly Arg Leu Ile Ile Gly 120 125 Leu Phe Cys Gly Leu Cys Thr Gly Phe Val Pro Met Tyr Ile Gly Glu 135 140 Ile Ser Pro Thr Ala Leu Arg Gly Ala Phe Gly Thr Leu Asn Gln Leu 150 155 Gly Ile Val Ile Gly Ile Leu Val Ala Gln Ile Phe Gly Leu Lys Val 165 170 175 Ile Leu Gly Thr Glu Asp Leu Trp Pro Leu Leu Gly Phe Thr Ile 180 185 Leu Pro Ala Ile Ile Gln Cys Ala Ala Leu Pro Phe Cys Pro Glu Ser 200 205 Pro Arg Phe Leu Leu Ile Asn Arg Lys Glu Glu Glu Lys Ala Lys Glu 215 220 Ile Leu Gln Arg Leu Trp Gly Thr Glu Asp Val Ala Gln Asp Ile Gln 230 235 Glu Met Lys Asp Glu Ser Met Arg Met Ser Gln Glu Lys Gln Val Thr 245 250 Val Leu Glu Leu Phe Arg Ala Pro Asn Tyr Arg Gln Pro Ile Ile Ile 260 265 Ser Ile Met Leu Gln Leu Ser Gln Gln Leu Ser Gly Ile Asn Ala Val 280 285 Phe Tyr Tyr Ser Thr Gly Ile Phe Lys Asp Ala Gly Val Gln Glu Pro 295 300 Val Tyr Ala Thr Ile Gly Ala Gly Val Val Asn Thr Ile Phe Thr Val 310 315

Val Ser Val Phe Leu Val Glu Arg Ala Gly Arg Arg Thr Leu His Leu 325 330 Ile Gly Leu Gly Gly Met Ala Phe Cys Ser Ile Leu Met Thr Ile Ser 340 345 Leu Leu Leu Lys Asp Asn Tyr Ser Trp Met Ser Phe Ile Cys Ile Gly 360 Ala Ile Leu Val Phe Val Ala Phe Phe Glu Ile Gly Pro Gly Pro Ile 375 380 Pro Trp Phe Ile Val Ala Glu Leu Phe Gly Gln Gly Pro Arg Pro Ala 390 395 Ala Met Ala Val Ala Gly Cys Ser Asn Trp Thr Ser Asn Phe Leu Val 405 410 Gly Leu Leu Phe Pro Ser Ala Thr Phe Tyr Leu Gly Ala Tyr Val Phe 425 420 430 Ile Val Phe Thr Val Phe Leu Val Ile Phe Trp Val Phe Thr Phe Phe 435 440 445 Lys Val Pro Glu Thr Arg Gly Arg Thr Phe Glu Glu Ile Thr Arg Ala 455 Phe Glu Gly Gln Val Gln Thr Gly Thr Arg Gly Glu Lys Gly Pro Ile 470 475 480 Met Glu Met Asn Ser Ile Gln Pro Thr Lys Asp Thr Asn Ala 490

(2) INFORMATION FOR SEQ ID NO:6:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 509 amino acids
 - (B) TYPE: amino acid
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: protein
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Met Pro Ser Gly Phe Gln Gln Ile Gly Ser Glu Asp Gly Glu Pro Pro Gln Gln Arg Val Thr Gly Thr Leu Val Leu Ala Val Phe Ser Ala Val 25 Leu Gly Ser Leu Gln Phe Gly Tyr Asn Ile Gly Val Ile Asn Ala Pro 40 45 Gln Lys Val Ile Glu Gln Ser Tyr Asn Glu Thr Trp Leu Gly Arg Gln 55 Gly Pro Glu Gly Pro Ser Ser Ile Pro Pro Gly Thr Leu Thr Thr Leu 70 75 Trp Ala Leu Ser Val Ala Ile Phe Ser Val Gly Gly Met Ile Ser Ser 85 90 Phe Leu Ile Gly Ile Ile Ser Gln Trp Leu Gly Arg Lys Arg Ala Met 100 105 Leu Val Asn Asn Val Leu Ala Val Leu Gly Gly Ser Leu Met Gly Leu 120 125 Ala Asn Ala Ala Ser Tyr Glu Met Leu Ile Leu Gly Arg Phe Leu 135 Ile Gly Ala Tyr Ser Gly Leu Thr Ser Gly Leu Val Pro Met Tyr Val 150 155 Gly Glu Ile Ala Pro Thr His Leu Arg Gly Ala Leu Gly Thr Leu Asn 165 170 Gln Leu Ala Ile Val Ile Gly Ile Leu Ile Ala Gln Val Leu Gly Leu 180 185 Glu Ser Leu Leu Gly Thr Ala Ser Leu Trp Pro Leu Leu Gly Leu 200 205 Thr Val Leu Pro Ala Leu Leu Gln Leu Val Leu Leu Pro Phe Cys Pro 215